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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,152	09/22/2002	Kurt Tiefenthaler	FREI.P041-2	2776
21121	7590	12/19/2003	EXAMINER	
OPPEDAHL AND LARSON LLP P O BOX 5068 DILLON, CO 80435-5068			SINES, BRIAN J	
			ART UNIT	PAPER NUMBER
			1743	

DATE MAILED: 12/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/065,152

Applicant(s)

TIEFENTHALER, KURT

Examiner

Brian J. Sines

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-75 is/are pending in the application.
- 4a) Of the above claim(s) 53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-52 and 54-75 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 5) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 6) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of group I, claims 1 – 52 and 54 – 70 in the response submitted 6/24/2003 is acknowledged. Claim 53 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 – 52, 54 – 62 and 71 – 75 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 – 20 of U.S. Patent No. 6,455,004 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because they appear to be directed to the identical optical sensor apparatus.

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Regarding claims 35 – 43, 45 – 52, 54 – 62 and 72 – 75, the subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: Regarding claim 35, Tiefenthaler further discloses that the waveguiding film may be oriented in a non-plane parallel manner with respect to the bottom of the substrate (see col. 13, lines 30 – 34). Regarding claim 36, Tiefenthaler teaches the use of substrates in the form of wedges, prisms, cylinder prisms, spherical lenses and cylinder lenses (see col. 13, lines 30 – 36). Regarding claims 37, 46, 56 and 72, the substrate may be made of a plastic material (see col. 13, lines 11 – 16). Regarding claims 38 and 57, a substrate can be provided with an intermediate layer of low refractive index (see col. 14, lines 6 – 23). Regarding claims 39, 48, 58 and 73, the waveguiding film can comprise at least one layer (see col. 12, lines 37 – 61). Regarding claims 40, 49, 59 and 74, the waveguiding film can comprise at least one layer of a high refractive index and one polymer layer (see col. 12, lines 37 – 61). Regarding claims 41, 52 and 62, the grating structures can comprise a UV hardening organic or inorganic material or a UV hardening organic/inorganic composite (see col. 12, lines 37 – 50). Regarding claims 42, 43, 50, 51, 60 and 61, the chemosensitive layer may comprise dextran (see col. 4, lines 1 – 13 & col. 7, lines 5 – 11). Regarding claims 45 and 55, Tiefenthaler further discloses various waveguide grating configurations where the two sensing pads are located as close as possible and adjacent to one another in which the grating lines are aligned parallel to the y-axis (see col. 5, lines 17 – 29). Regarding claims 47 and 75, the substrate may be provided with an intermediate layer having a low refractive index (see col. 14, lines 6 – 23). Regarding claim 54, Tiefenthaler further discloses the use of unidiffractive and multidiffractive gratings (see col. 4, lines 19 – 22).

Claims 63 – 70 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 21 – 28 of U.S. Patent No. 6,455,004 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because they appear to be directed to the identical process.

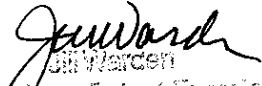
### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Duveneck *et al.* teach an optical biochemical sensor. Danielzik *et al.* teach a process for determining luminescence using a planar dielectric optical sensor platform comprising a transparent substrate and a thin waveguiding layer. Groger *et al.* teach a method of fluorescence analysis using a planar optical waveguide.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Sines, Ph.D. whose telephone number is (703) 305-0401. The examiner can normally be reached on Monday - Friday (11:30 AM - 8 PM EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (703) 308-4037. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700